

REMARKS

Claims 1 - 50 are in the case.

The applicants have studied the Office Action dated April 8, 2005 and have made the changes believed appropriate to place the application in condition for allowance. Reconsideration and reexamination are respectfully requested.

The drawings have been objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 210 [0048]; 252 [0054]; 253 [0054]; 318 [0060]; and 334 [0062]. The drawings have been objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 256, 260, 264, 262, 294, and 296 (see Fig. 7); and 304 and 151 (see Fig. 4).

The attached sheets of drawings include a sheet which includes changes to FIG. 4. This sheet, which includes FIG. 4, replaces the original sheet including FIG. 4. In FIG. 4, previously omitted reference numerals 318 has been added and previously included reference numeral 304 has been deleted. The reference numeral 334 has been changed to 210a in the specification. The reference number 151 is referenced in original paragraph [0057].

The attached sheets of drawings also include a sheet which includes changes to FIG. 7. This sheet, which includes FIG. 7, replaces the original sheet including FIG. 7. In FIG. 7, previously omitted reference numerals 252 and 253 have been added and previously included reference numerals 256, 260, 264, 262, 294, and 296 have been deleted. The reference number 210 has been changed to 210a, 210b in the specification. It is respectfully submitted that the objection to the drawings should be withdrawn.

Applicants acknowledge with thanks the indication of allowability for claims 1-45.

Claims 46-50 have been rejected under 35 USC 102(e) as being anticipated by US 2003/0217914

to Miller et al. (Miller). Claims 46, 48 and 50 have been rejected under 35 USC 102(e) as being anticipated by US 2004/0020770 to Wang et al. (Wang). This rejection is respectfully traversed.

Claim 46 has been amended. It is respectfully submitted that the amendments are made to clarify recited features and do not narrow the scope of the claimed inventions.

Claim 46 is directed to a reactor system for depositing conductive material onto a substrate, comprising, *inter alia*, "... capacitively coupled plasma means including a pedestal electrode, for generating a capacitively coupled plasma, and for biasing a substrate to attract plasma ions to resputter a portion of said conductive material from said substrate; and electromagnetic coil means for generating a magnetic field to surround said pedestal and confine said capacitively coupled plasma to increase the density of said capacitively coupled plasma adjacent said pedestal electrode." It is the Examiner's position that the Miller reference describes a "capacitively coupled plasma means including an RF biased pedestal" citing paragraph [0078] of the Miller reference. However, the Miller reference describes the plasma as being generated by the magnetron 60. [Miller reference, paragraph [0079], et seq.] The Examiner has cited no portion of the Miller reference which describes a plasma generated by a "capacitively coupled plasma means" as required by claim 46.

Similarly, it is the Examiner's position that the Miller reference describes an electromagnetic coil means 258. However, it appears that the field generated by the coil 258 is intended to enhance "the projecting field produced by the unbalanced magnetron" [Miller reference, paragraphs [0122], et seq.] rather than a capacitively coupled plasma. The Examiner has cited no portion of the Miller reference which describes "electromagnetic coil means for generating a magnetic field to surround said pedestal and confine said capacitively coupled plasma to increase the density of said capacitively coupled plasma adjacent said pedestal electrode" as required by claim 46.

With respect to the Wang reference, It is the Examiner's position that the Wang reference describes a "capacitively coupled plasma means including an RF biased pedestal" citing paragraph [0029] of the Wang reference. However, the Wang reference describes the plasma as being generated by the roof magnetron 60 and the sidewall magnetron 42. [Wang reference, paragraphs [0030], et seq.] The Examiner has cited no portion of the Wang reference which describes a plasma generated by a "capacitively coupled plasma means" as required by claim 46.

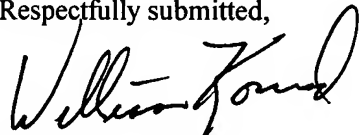
Similarly, it is the Examiner's position that the Wang reference describes an electromagnetic coil means 130 . However, it appears that the field generated by the coil 130 is intended to defocus "the beam guiding optics of the unbalanced sidewall magnetrons 42, 50 adjacent the wafer ..." [Wang reference, paragraphs [0035], et seq.] rather than enhance a capacitively coupled plasma. The Examiner has cited no portion of the Wang reference which describes "electromagnetic coil means for generating a magnetic field to surround said pedestal and confine said capacitively coupled plasma to increase the density of said capacitively coupled plasma adjacent said pedestal electrode" as required by claim 46.

The rejection of the dependent claims is improper for the reasons given above. Moreover, the dependent claims include additional limitations, which in combination with the base and intervening claims from which they depend provide still further grounds of patentability over the cited art. It is therefore respectfully requested that the rejection of the claims be withdrawn.

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In view of all of the above, it is respectfully submitted that the present application is now in condition for allowance. Reconsideration and reexamination are respectfully requested and allowance at an early date is earnestly solicited.

Respectfully submitted,



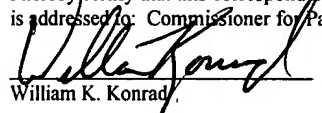
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail on the date indicated above and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
William K. Konrad

7/8/05  
(Date)

IN THE DRAWINGS:

The attached sheets of drawings include a sheet which includes changes to FIG. 4. This sheet, which includes FIG. 4, replaces the original sheet including FIG. 4. In FIG. 4, previously omitted reference numerals 318 has been added and previously included reference numeral 304 has been deleted.

The attached sheets of drawings also include a sheet which includes changes to FIG. 7. This sheet, which includes FIG. 7, replaces the original sheet including FIG. 7. In FIG. 7, previously omitted reference numerals 252 and 253 have been added and previously included reference numerals 256, 260, 264, 262, 294, and 296 have been deleted.

Attachment: Replacement sheets (2)